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PUBLIC MEETING )
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OUTBOARD MARINE COMPANY/ )
WAUKEGAN COKE PLANT SUPERFUND )
SITE. )

REPORT OF PROCEEDINGS had at the above entitled meeting, taken before Cindy Benner, C.S.R., a notary public within and for the County of Lake and State of Illinois at the Waukegan Public Library, 128 North County Street, Waukegan, Illinois on Wednesday, March 3, 1999 at the hour of 7:00 P.M.

Reported by:
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9 North County Street
Waukegan, Illinois 60085

MS. POPE: Good evening and welcome to the meeting tonight. My name is Janet Pope and I'm a community involvement coordinator with the U.S. Environmental Protection Agency.

Tonight our task is to present you with a proposed cleanup plan for the Outboard Marine Company/Waukegan Coke Plant Superfund Site.

I hope everybody when they entered in signed in. When you sign it, it keeps your name on our mailing list and we can give you all of the updated information once we get it. So I hope everybody signed in when they entered. If not, you can sign in before you leave.

I would like to emphasize your role in tonight's meeting. It's a very important role. If you received a fact sheet in the mail, then you're aware of the public comment period that we have for the site. The comment period ends March 23rd. So if you have any comments on the proposed plan or the alternatives that Mike is going to present tonight, please send in your comments. They can be in writing, E-mail, whatever. Just send your comments in and Mike will have those.

During the presentation -- we'll go over

the agenda first. Currently I'm doing the format from the introduction and then we'll have Leo Rosales, who is a community involvement coordinator with me, he'll do some brief greetings in Spanish, and then I'm going to have Mike Bellot, who is going to present the proposed plan.

Then we will have a question and answer period. Now, at the question and answer period, if you have any questions that you want answers to, that's the time to ask your questions, because when we get into the public comment period which follows immediately after that, we won't respond to those comments. Those comments or questions will be responded to in what we call a responsiveness summary. So if you have any questions that you need answers to, please ask them in the question and answer period and I'll make the distinction between those two when they come up. I'll say, "Now we're in the question and answer period. Now we're in the public comment period," and I'll remind you of those things. Okay.

So now at this time I would like to introduce a few people that we have here. First we have Susie Schieber, who is from CAG here. Susie is

over there. Everybody knows Susie. And then we have Jerry Willman, who is from the Illinois EPA. He's in the back. Then we have, again, Leo Rosales here with the U.S. EPA. And then we have Mike Bellot. Then we have Cindy Benner here, who's a court reporter. She's going to be recording this meeting in its entirety and a transcript of this meeting will be available within two to three weeks in the information repository that's upstairs, and you can read it or get a copy of it. If you want a copy of the transcript, you can call me up and say, "Hey, Janet, can I have a personal copy," fine, we can send you those things.

At this time Leo Rosales will come up and give brief greetings in Spanish.

MR. ROSALES: Hello, everybody. I'm just here to answer any questions people may have in Spanish. We understand that this is a Hispanic community here. Let me repeat this in Spanish now.

(Whereupon, Mr. Rosales speaks in Spanish.)

MR. ROSALES: So what I just said was that I was going to be here after the meeting to respond to those questions in Spanish. Thank you very much. Michael?

MR. BELLOT: My name is Michael Bellot. I'm also here representing the U.S. Environmental Protection Agency, and I again want to thank you all for coming. I know how difficult it is to come out on a Wednesday night, so I wanted to make sure that I first of all thanked you.

I also when I was preparing this asked myself, "What would I want to know if I was sitting in this crowd? So to make this as user-friendly for you as possible, I sat down and I came up with a series of questions that during my presentation I intend to answer, and I will go through those questions first.

First of all, by the time you leave, you should be able to say, "What activities occurred at this site? When did they occur? What kind of contamination is there? Where is the contamination and what are the concentrations? What are you planning to do? Why did you choose this particular remedy? Is it safe around that site? How do I know it's going to be safe? When is this cleanup going to begin? How long is it going to take? Who's going to pay for it? Where can I go if I want more information?"

So by the time -- at the end of this discussion we're going to come back to these questions and I'm going to visit each one of them to make sure that all those questions are answered, and then if you have additional questions at the end, we'll go over them one by one if you would like.

What I'm going to talk to you about today is about the proposed plan, and before I do that, I want to talk to you about the Superfund process so you can see where this site is in this Superfund process you hear about.

The next thing I would like to do is talk about the site background. I would like to then talk about the types and the locations of contamination. I would then like to talk about the remedies evaluated, the proposed remedy, the remedy that we would like you to help us choose, the schedule, and then we'll go into a question and answer kind of on the technical aspects of this site. So we'll have a lot of information right off the bat so you will be able to put your thoughts together.

The first thing I would like to do then is talk about the Superfund process. This is the

typical Superfund process. It begins with site discovery, and site discovery can happen in a multitude of ways. Someone may call us and say there's a problem. Someone may report a spill. So site discovery can happen in a lot of different ways.

The next box says PA SI. You're going to get a long list of government acronyms and I promise you I will try to explain every single one of them. If I don't, raise your hand and say so. PA means preliminary assessment. SI means site inspection.

What you do in a preliminary assessment is you go get available records, you take a look at the available records, and you try to determine what kinds of wastes are at this site, how toxic are they, have they been released, and you do this basically on a record search.

If you go through this record search and you find that a particular facility has a lot of waste or has potential for release, you do this SI, the site investigation. You go out there and take some samples to check and see if the soil or the groundwater, if there is actual contaminants present.

If that happens and you have contaminants, it then again goes on to the NPL, the National Priorities List. This is the technical term for Superfund. When you hear the word Superfund, what they're really talking about is the National Priorities List. The National Priorities List allows EPA to spend money to clean a site up.

After it's placed on the National Priorities List, an RS is conducted. RI stands for remedial investigation. The purpose of the remedial investigation is to determine the nature and the extent of contaminantion, what kind of contaminants are out there, where are they located, and at what concentrations.

After you do the remedial investigation, you next do the feasability study. So you understand in the remedial investigation these are the kind of contaminants we have at these concentrations.

The feasability study looks at all the different remediation technologies that are out there and you try to find the best fit for the contaminants that you have. Often sites -- and this site is the same as many -- you have a multitude of

contaminants in multiple media, and multiple media means you have it in soil, you have it in the groundwater, you may have it in the surface water, and oftentimes -- actually many times you cannot use the same technology for different contaminants in different media. So the feasability study is a very detailed document. It goes through each one of the media, each one of the contaminants, and what it does is it screens out an awful lot of technology early on.

After the feasability study, which is where we are right now in this process, we are at the proposed plan process. What the proposed plan does is the EPA takes a look at the feasability study and says, "Of all these alternatives, which one seems to hold the most promise," and then we come out to the community and try to get community input on what they think is important in a remedy-making decision.

I want to stress right now this remedy decision has not been made. This is an opportunity for everyone to get as involved as they would like to in the remedy decision process. We're not coming out here to tell you this is what we've chosen. We're coming out here to say this is the one we're

leaning towards based on the criteria we have. Let's see if it matches your criteria.

After the proposed plan, we've got a thirty day comment period, which we're in right now. At the end of thirty days, we're going to get all of your comments at the end and we're going to develop a responsiveness summary, which is a written response to these questions, and then we're going to put together this record of decision or ROD. A ROD is EPA's decision document. It goes into the record and lays out all of the rationale for making a particular choice.

Between the proposed plan and the ROD we can change remedies. We have before based on community input. So I wanted you to understand that your input is timely and it is important.

After the record of decision, then comes the remedial design phase. Remedial design, I always kind of equate it to building a house. Before you build a house, there's a lot of pre-work you have to do. You have to get your contractor; you have to get your wood; you have to get your permits; you have to get your location. That's what the remedial design does for remediations. We

design the remedial activity.

After the remedial activity, then you move into the remedial action. That's where you implement -- that's when the contractor starts pounding nails. That's remedial action. We'll talk about this process as it relates to the Waukegan Coke plant a little bit later and I'll give you some timelines of when you can expect things to happen.

The significance of this overhead is mostly the orange area. The site is actually located right here, and what this tells you -- this is zoning information, and the significance of this is you can see that we're talking about a pretty industrial corridor. The orange represents industrial. The green represents parks. The yellow is public and semi-public uses.

The significance here is the site is an industrial area and for purposes of our evaluation, we considered that it would probably continue to be an industrial/commercial scenario.

Let me talk a little bit about the site itself. Going back as far as 1893 we saw that EJ&E Railroad owned the site. From approximately 1908 to 1917, in that neighborhood, there was a creosote

treatment operation that occurred on the site, and what creosote is, if you have ever seen railroad ties or telephone poles, they're often treated with a black substance. It looks kind of tarry. It keeps the bugs out. That's what the creosote treatment did. They treated railroad ties probably.

From 1928 to 1969 there was a manufactured gas and a Coke plant. There were multiple owners during that time. So there's a couple of processes that occurred from '28 to '69.

From 1972 to 1989 the site was largely used by Outboard Marine Company, OMC. Not a whole lot of manufacturing activities have occurred on the site that we're going to be talking about. They've got a lot of things that they're still doing there, but the Coke plant site -- which we'll get to in a minute -- has pretty much been vacant. There was some parking that was done there; there was some snowmobile testing. Larsen Marine is actually storing some boats and some boat trailers. But for the most part it's fenced off, it's kind of shrubby; and its access is restricted.

In 1972 the remaining buildings -- there were some buildings that were still on-site that

were demolished. So it's essentially a flat site with a couple of hills and quite a bit of brush.

The EPA first became interested in the Waukegan Coke plant as opposed to the Outboard Marine Company in about 1990. What had happened is previously Outboard Marine Company was conducting a remediation of polychlorinated biphenyls, PCBs. That was a process that OMC used oils in and the PCBs were in the oils.

While they were doing this cleanup, they developed three cells on site. If you want to think in your mind what a cell looks like, it's kind of like a clay briefcase. It's got clay sides, a clay bottom, and a clay top. So these three cells were developed on site to handle the PCBs. One of the cells was actually the former Slip No. 3. A slip is where they pull the boats in to work.

What they did is they built a little suitcase around this slip, built it up with some of the sediments, and capped it off. When they took out an old slip, old Slip No. 3, they went to build a new slip, Slip No. 4. When they started digging, surprise, toxic treasure. They found this creosote-contaminated soil, lifted up this

creosote-contaminated soil, and OMC put it on site, and they have currently got it covered and they're managing it on site, but what this told them was, wait a minute, we have contamination at this site that is not PCB contamination. We have some contamination at this site that is very different, and our remedy isn't designed to handle this, so we need to take a look at this.

The other thing that I would say is the PCB side of the story is for the most part cleaned up. They've got the three cells on site, they're working, the wastes are in them, so there's going to be a long-term operation and maintenance of the PCB cleanup, but we're really not going to talk about that tonight. We just needed it from the perspective that that's how we found out about this other contamination. So now what we're going to talk about is the actual contamination found at the Waukegan Coke plant.

Once they found this creosote contamination in 1992 and 1993, they did a two-phase remedial investigation, RI, and what they did is they did 37 trenches. The reason that trenches are good is the waste from the Coke plants is kind of black

tarry-looking stuff. It's easily distinguishable in the soil. If you see it, you can start digging and you can keep chasing it. So it's easily chaseable in trenches.

They also took 33 soil samples. They also did 78 borings to the till. Now, let me tell you a little bit about what that means. If you look at the geology of this particular peninsula, once they put the breakwater in, sand started accumulating on this peninsula, and the peninsula is much bigger now than it was in the 1800's. It's much bigger. Most of that is the result of the breakwater having sand deposited there. It's kind of like when you're building a sand castle at the beach, you take the sand up, you bring it up to the top, you dump it and you accumulate it. That's what has happened on this peninsula.

So the majority of this peninsula is almost exclusively sand from the surface all of the way down to about thirty feet, and that's where there's a glacial till. When the glaciers came through, they left this till down there. So you've got sand almost completely down to thirty feet.

They did 78 borings across this site and

they took a boring at about every four feet. So we're looking -- if you do the math there, 300 and some borings -- 300 and some samples in those 78 borings. So there's a lot of soil data out there. In some places they even dug down into this glacial till. They drilled down into the glacial till to see where the contaminants stopped because they know that the contaminants were migrating downward. So there is a lot of samples to determine how deep the contamination went.

So what did they find? There's three things to remember on the soil. The first one is polynuclear aromatic hydrocarbons, PAHs. That's your traditional manufactured Coke plant kind of waste. We're not at all surprised to find PAHs there.

The second thing they found is arsenic. Now, remember we're only talking about soils now. And the other thing is creosote contamination.

Soils, there's three things to remember: PAH contamination, arsenic contamination, creosote contamination.

The next thing that we should talk just for a moment about is you kind of know what this soil

data is. What does it mean? What do you compare it to? What the EPA does is they do a risk evaluation and a baseline risk assessment. Actually, let me clarify one thing. The samples weren't actually taken by the EPA. They were taken by the North Shore Gas Company, who is conducting the remedial investigation. So we oversaw the sampling, but the actual sampling was done by past owners and operators.

One of the first things we do is we make an assumption about what the future use of the site is going to be because exposures are very different depending upon what your future use is, and I think you can probably see the difference between a playground for a child and a building or asphalt. You're just not going to have the soil exposure. So we made some assumptions.

We didn't think it was realistic that there would ever be a residential scenario here and probably will hold true to that. We assume that this is going that be a commercial/industrial development. Once you kind of understand what your exposure scenario is going to be, we then take a look at the chemicals and we kind of break them down

into two pieces, whether they're a carcinogenic or a noncarcinogenic risk, whether they cause cancer and at what level, and there is also things that are bad for you, but they're not really carcinogens. They don't cause cancer; they just make you sick in other ways. And the baseline risk assessment determines the standards for this unacceptable risk.

What we found is there are discrete areas in the soil that have an unacceptable risk for future use for industrial and commercial scenarios.

Groundwater -- I've got to be honest with you. This groundwater is really contaminated. It's never been used for drinking water, and in all likelihood we may not see that -- I don't think we'll ever see that happen. This is highly-contaminated groundwater.

So this is like an artistic rendition, if you will, for the visual learners like myself of the contamination. And we're only talking about soils contamination here. Let me acquaint you with the site.

Over here we have Lake Michigan. Here we have the Waukegan Harbor. It winds around like this. OMC Plant No. 1 is over here. OMC Plant No.

2 is over here. This would be Seahorse Drive right here. The blue areas, those are PAH soils. The red area, that is arsenic soils. So these are the areas of unacceptable risk based on the industrial scenario.

This little square right here -- I don't know how well you can see that. That's a little box. That is the creosote-contaminated soils, the temporary storage pile. Right there is the Slip 4. Over here is Slip 3. What they did is they filled Slip 3 and when they went to build a new Slip 4 over here, they found this creosote-contaminated soil there.

The other thing that's on the site as a very notable feature is there's a stockpile of dredged sand that's also on the site. We'll talk about that in a little while too.

But the important thing to take out of this is there are multiple locations where there are PAHs and there is one general location where there is arsenic soil contamination at an unacceptable risk.

In addition to the soils, there was also a groundwater study done and 35 groundwater wells were installed and samples were taken. What we found was

things were a little different in groundwater than they are in soils. Arsenic is still in groundwater, but we've got some other things. We've got ammonia, phenol, thiocyanate as the major groundwater contaminants.

The other thing I want to mention is I'm really telling you the major contaminants. There are a myriad of little things that are out there too, but the things that are really going to drive the remedy are the things that we're talking about today.

The RI is probably about that thick, and they ran an analysis for just about every chemical you can imagine. So we have a thorough understanding of what was out there. I'm summarizing for you the important things, the things that are really going to make a difference in our final analysis.

Groundwater, federal and state standards are completely exceeded, way exceeded, not even close, very, very high contamination above these state and federal drinking water standards. Good thing it's not drinking water. It's never been used for drinking water. DNAPL, dense nonaqueous phase

liquids. What does that mean? If you have a glass of water, for example, and you pour -- have you ever seen that dark Karo syrup? You pour it in and it goes right straight down to bottom and it sits and it slowly kind of discharges over time. That's how you can equate it to DNAPL.

One of the things a lot of times you find at these manufactured Coke plants is this kind of a waste and it really complicates the cleanup because it's really hard to get out.

What our borings showed us is we really didn't have that here. Everybody was expecting to find it. The reason we didn't have it, we think, is because the process, they actually distilled their tars a little bit more and these lighter factions would have come off. So the stuff that hit the ground is the really heavy tar and it just kind of sat there.

The other thing we found that was very interesting, the reason we thought it was going to be DNAPL is the groundwater contamination is pretty much limited to the bottom five feet of the aquifer. That's where it's the highest contamination. There's contamination above it, but it's really

dense at the bottom, which would lead you to believe, oh, it must be heavier and it just sank there.

What's really happened is they stopped discharging to the lagoon many, many years ago, and if you remember, this is mostly sand, so all the surface water that came in is going to push that stuff down. It's going to push it down and it's going to wash it out. So the shallower stuff is not nearly as contaminated as the deeper stuff. The deeper five feet is highly-contaminated groundwater.

The other thing we found is in addition to this like layer across the bottom, there's a highly contaminated slug or plume that's present. It kind of has a kidney bean/thumbprint shape that we talk about quite a bit.

This is an overhead that gives you a feeling -- this is arsenic. You can see pretty much there's contamination all over the site, but there is this little thing right here that represents some significantly contaminated groundwater, highly contaminated.

This is phenol. You can see -- the important things that you see here is there is again

this kind of area, but it's not exactly the same shape as the arsenic. I don't know if you notice that subtlety. They're similar, but they're not exactly the same because these things have a tendency to move a little bit differently in the groundwater than one another.

And then finally, this is ammonia. I didn't do all of them. I just wanted to kind of cherry pick the ones that were really important. You can see ammonia is clearly much more over the site, and if look over here, we have another hotter area over here. So we have the hotter area over here and we have a hotter area over here with regard to groundwater.

I would like to talk a little bit about surface water. We've talked about soils. Soils are PAHs, arsenic, creosote. Groundwater is arsenic, ammonia, thiocyanate, and phenol. There is an ongoing discharge to surface water. Remember, on the west side we have the harbor. On the east side we have Lake Michigan. This site is interesting in that it has a groundwater divide where some groundwater goes towards the harbor, some groundwater goes towards the lake.

Where that highly-contaminated area was, the lima bean or the thumbprint, that's moving towards the lake. That other area that was down close to the harbor, that's moving towards the harbor. So we've got contamination going in two different directions here.

On the lake side -- on the east side moving towards Lake Michigan we have exceedances of the State of Illinois surface water quality standards for open waters for ammonia. I would like to talk a little bit about the significance of that. Ammonia is not a human health or an ecological standard in this particular surface water standard. What happened is the State of Illinois said, "We don't want the quality of Lake Michigan to get any worse." It's kind of like a natural -- a non-degradation rule. They said this is kind of what it is now, we don't want it to get any worse. It's 20 parts per billion. It's remarkably low considering in the harbor it's 15,000. So you can see that there's quite a contrast.

But there is and probably will be for a long time an ongoing discharge to Lake Michigan. So one of the things that are important to us in trying

to come together with a remedy here is we need to protect the surface water. I mean that's the bottom line for us. So now you know a little bit about the contamination.

Let me summarize it one more time. Soils, we have arsenic, PAHs, creosote. Groundwater, we have arsenic, ammonia, phenol, thiocyanate. Surface water, we have discharge to surface water. Ammonia seems to be a pretty significant thing for us with regards to surface water.

After we've got all this data and we know where the contamination is and how much, we did -- the PRP's and North Shore Gas did a feasability study that evaluates all the different options for treating these contaminants in these media, and what EPA is proposing to do tonight is to ask your help in choosing a remedy. We're leaning towards one. We would like to see what you guys think about it.

The feasability study looked at a lot of different things which I'm not going to go through tonight. I just want to put them up here so you can see. There's a lot of things for you to look at.

There's aerobic bioremediation, low temperature thermal desorption, soil washing, fuel

blending and cement kiln incineration, slurry wall mix design, phytoremediation. All these things were looked at. So if you got all of this stuff, what do you compare it to?

The EPA has criteria and we have nine of them. First and foremost, is it protective of human health and the environment? So we get these remedies and we start laying them up against these criteria.

Secondly, will it comply with regulations, because there is more than just federal regulations, there is state regulations and even local regulations. So we want to make sure the remedy is protective of human health and complies with regulations.

Is it effective in the long-term? Is it a permanent solution? We're always looking towards remedies that have a reduction in toxicity or mobility or the volume of contaminants. We're looking for things that are effective in the short-term. We're looking for things that are truly implementable, it's not a grand dream. Cost is a factor, if something is not financially feasible. We look to the state, is this remedy acceptable to

the state. We'll specifically inquire to them and actually work hand-in-hand with the state to make sure they're okay with the remedy. And an important part that we're doing tonight is to seek your input on a remedy also.

Let's go through the remedies. There's four of them and we'll move pretty rapidly through them. The first alternative that EPA is required to evaluate is the no action alternative. What if we did nothing? What would happen then?

The second alternative, I'm going to break it up into soil and groundwater and kind of piece them for you. Soil, for the PAH soils, Alternative 2 recommends they go off-site and they be destroyed, coburned. The creosote soils or the arsenic soils, they would be stabilized on site or solidified. What that means is you mix them into a matrix where they're not -- where they will not migrate to groundwater and they cannot cause an exposure threat.

There would be an asphalt cap over a large portion of the site. Whenever you create an asphalt cap, you have to create a detention basin because if you have rain water, it has to go someplace. So the

detention basin would take a big chunk of this site also.

There would then be what's called institutional controls, and what an institutional control is, we restrict this property to industrial or commercial uses and we restrict the property use such that they can't interfere with this remedy. They can't destroy the cap. We can't have the continuity of the remedy impeded upon. So that's the soils component for Alternative 2.

The groundwater component for Alternative 2 first considers containment, and that's the slurry wall. That's you dig down, you put a clay wall in it, and you try to capture the plume. Then you would have to pump that water out, treat it, and do something with that water once you pump it out and treat it.

Additionally they would go after these two hot areas, the fingerprint or the kidney bean, and then the other hot area by the harbor, pump them up, treat them, reinject them, and then there would be a biointrinsic natural remediation afterwards.

There's been a rather large study done to see how well things would break down in the

groundwater, and this is what we learned. Contaminants are currently way too high to support natural degradation. It is a -- it's a killing environment for the bugs. Concentrations of these groundwater contaminants are so high the bugs can't thrive to help break down the chemicals. If we get a one-third reduction approximately in the contaminant concentrations, we start to see degradation work rather rapidly and rather successfully, but right now we have a prohibitive situation.

Alternative 3 in a lot of ways is very similar. Let me tell you what is different about Alternative 2 and Alternative 3. Alternative 2, first of all, with the soil, the first significant difference is the flexible cover option. Asphalt would limit future use of the site as proposed in Alternative 2.

Alternative 3 would use a combination of vegetative caps, buildings, and maybe some parking lot type stuff. What it would do is it would originally be put in as vegetation, which would control infiltration. As surface water hits the site, it migrates down, starts pushing the

contaminants. We want to stop that infiltration. Plus the roots of these plants will break down whatever residuals are left. It also allows for future development of the site. They would have the same institutional controls. We would limit the future use.

Groundwater would have interim treatment. You'd go after the two hot spots. You'd then have monitored natural attenuation or intrinsic bioremediation.

Alternative 4 is the Cadillac. This is let's pick everything up that's contaminated on the site, take the soil off-site, let's pump and treat this groundwater until we meet MCLs.

Alternative 1 was the no action. It has no cost, but it's not protective. So we can pretty much eliminate no action as a possibility right off the top.

Alternative 2 -- actually Alternative 2, 3 and 4 all meet all of the criteria. Well, certainly -- let me back up. Alternative 2 and Alternative 3 certainly meet all the criteria. All those nine criteria we laid out, they met all of those.

Alternative 2 runs 39 million. Alternative 3 runs 25 million. Both of them meet all of the criteria. Alternative 4, they ran it out for thirty years and they said at thirty years it's going to cost a hundred million, and it may not be technically practical to pump and treat this groundwater in a reasonable amount of time to get to MCLs. It may not be cost-effective. So if you took that hundred million out -- that one is a pretty costly remedy.

So what I think the EPA is leaning towards right now is Alternative 3, which would include soil removal. The PAHs would go off-site. They would be coburned. The arsenic-contaminated soils would be stabilized on site. There would be the use of a flexible cover and there would be institutional controls. The groundwater would include an interim pump and treat system and a natural biodegradation afterward.

Let me talk a little bit more about specifically what the soils remedy would be. First of all, there would be excavation and off-site treatment of the PAHs by coburning. We're looking at 7,000 to 15,000 cubic yards. What's a cubic

yard? A foot by a foot by a foot is a cubic foot. 27 of those is a cubic yard. So we're talking about a pretty big volume of soil.

The on-site stabilization would probably be a mechanical mixing with a stabilization agent or concrete, something to that effect. We're looking in the neighborhood of 3,000 to 7,000 cubic yards of soil for the arsenic. Off-site treatment/disposal of the creosote soils, we're looking at approximately 4,500 cubic yards. Soil cover would be a combination of vegetative, buildings and pavement.

The institutional controls would be deed restrictions for industrial/commercial use. And we would also want a soils management plan, and what that soils management plan says is, all right, we understand now we have a vegetative cover. If we want to develop this site in the future for a particular use, what kind of standards are we going to be held to? What kind of sampling are we going to do? What will be the process of getting this approved through the EPA for future development of this site?

So here's what the site would look like.

These blue areas would be taken off site and this red area would be stabilized on site and would become a cover. Actually the site before the cover comes on would be within the acceptable risk range. So this cover actually adds an additional benefit to the site. There may be multiple kinds of -- part of it may be fido, part of it may be buildings. It's just going to vary on what folks want to do in the future. So that's the soils. The PAHs go off-site, arsenic stabilized on site, creosote goes off site.

Groundwater, first of all, there would be an interim groundwater treatment system. It would be cell-based. And I'll tell you what cell-based is in a minute. I've got some diagrams to show you. This would require reinjection. You take the water up and you need to do the reinjection. We would have to have a waiver of federal and state prohibitions against reinjection. I'll tell you why that's important in a moment. Then we have the -- in terms of bioremediation, monitiored natural attenuation, there would be a long-term monitoring for this site for the foreseeable future and there would be a prohibition against drinking water wells. There are none out there now, but there would be a

prohibition against them.

Here are the two areas of concern for the interim pump and treat system. You've got your kidney bean area here and you've got this zone over by Slip 4. What they do is -- this is a planned view looking down. You're looking down at the soil. It's 100 feet by 200 feet. In the middle of this cell are ten pumping wells. They're like straws down to the aquifer to suck the water up. The water then goes to a treatment center which we'll talk about in a minute, comes back to the reinjection wells, and filters back down into the same cell. So you've got it coming up and going down. So you get a washing effect to this zone and we're going to try to determine how many times you have to do a complete pour volume through this zone to get it to clean up.

Once it comes up, it goes off and there's a two-step process here. There's electrochemical precipitation to try to get the inorganic arsenic removal and then there's an activated sludge, and what that does is that's going to attack the phenols, the organics, and the ammonia. What it's going to do is it's going to change that ammonia to

nitrate and it's going to oxygenate the water so the water that is returned to the aquifer is going to have a food source for bioremediation and it's going to have oxygen to help stimulate the breakdown after the treatment system has been completed.

How they'll start is they'll start with four cells at a time and they'll pump those cells, and when those are done, then they'll go to another four, and when those are done, then they'll go to another four until they have completely covered these two areas.

So what's it going to cost? To do this, the capital cost, in other words -- the pieces you've got to build to construct it runs 14 million dollars, 14.1 millions. O & M is operation and maintenance. How much money do you have to have in the bank to pay for this system once you build it and you operate it? That's another approximately 11 million. The creosote-contaminated soils were not contained in the feasability study. If we want the creosote-contaminated soils to also be managed, that's going to be another 1.5 million. So we're looking at a proposed remedy of about 26.5 million dollars.

Let me just real quickly bounce one more time Alternative 2 and Alternative 3 because Alternative 1 really wasn't protective and Alternative 4 is pretty costly.

Alternative 3 we feel is protective, which is the fundamental, important criteria. It's effective and it's practical. It also allows for maximum future development potential. And we're looking at 26.5 million dollars.

Alternative 2, the real probably crucial element was you could put in this slurry wall, but it's very close to Lake Michigan, and how are you going to control the water from getting inside the slurry wall, and it's very expensive to pump that up and it really doesn't make the groundwater that much safer, so is there a real value to having a slurry wall? Also, we felt that the asphalt portion on the soils side severely limited any future use of the site. And we're looking at 39 million, an extra 12 and a half.

So let's go back over the questions real quick just to make sure that I've got them all. What activities occurred at the site? We know in the late 1800s, wood treaters. In the early 20's --

actually it was 1908 to 1917 -- was the wood treaters. From the 20's into the 60's was the manufactured gas and Coke plant activities. Afterward OMC used it a little bit for storage. Larsen is using it for some trailers and boat storage. That's when they occurred.

What kind of contamination is there? Remember, in the soils we have PAHS, we have creosote, we have arsenic. In the groundwater we have ammonia, arsenic, phenol, thiocyanate. And in the surface water we're concerned about ammonia. The concentrations actually vary. The PAHs go from a high of 72,000 parts per million. In the soil the arsenic is in the neighborhood -- the highest in the 4,000 parts per million range in the soil. Groundwater is highly contaminated, high parts per million range of ammonias.

What are you planning to do? PAH soils go off-site, coburned. Arsenic soils stabilized on site. Creosote is done off-site. Groundwater, pump and treat the hottest areas. Reinfiltrate this nutrient-rich water to try and degradate the stuff that is already at the bottom of the aquifer. The cap, the flexible cap is going to come in for future

use. That flexible cap is going to reduce infiltration. It's going to stop or significantly slow down the groundwater movement towards the lake and towards the harbor. So we've got a slow-down of the groundwater, which would allow it to break down.

Why did we choose this particular remedy? We eliminated No. 1 and No. 4. One was due to cost and practicality and the other one was due to its probable inability to be protective. The other two we did kind of a balance of the criteria, which one seemed to be the best fit.

The next question, is it safe to be around the site, as you now know, the site is pretty much fenced off. There is access from the lake or the harbor, but it's pretty difficult to get at the site. We expect that that will be true, it will be the same way through the entire remedy. There is no indication that it's not safe to be around the site, and when they actually get into doing the work itself, the people who are doing the work, there's going to be somebody who designs it and they're going to be oversaw by an independent contractor of the PRP or the operator's choice. EPA is going to provide oversight and EPA is going to have its own

contractor providing oversight, and the State of Illinois is probably going to provide oversight. So you're going to have a number of layers of redundancy to make sure that things are done right and that it's done safely.

The next thing is there is going to be sampling at the perimeter while this work is going on to make sure that there is -- there is actually going to be sampling right at the excavation and at the perimeter to make sure there are no releases or anything that we need to be concerned about. So you are going to have the oversight of people who will be there, multiple people, plus you're going to have the oversight of the actual sampling data.

When will the cleanup begin? Let me tell you what has to happen before the cleanup can begin. We're in the proposed plan process right now. We have a record of decision that needs to come out after the proposed plan. The proposed plan is scheduled -- the comment period is scheduled to end March 23. I would say that the ROD, assuming there are no changes to the remedy or assuming that people don't want to extend it out a little bit more, the ROD will be thirty to sixty days after that, after

which as soon as the ROD is developed, EPA will issue what's called a special notice.

Special notices go to the past and present owners and operators and invite them to implement this remedy. They've got 120 days to sign on to a consentual agreement to do this work. If they do not sign on that consentual agreement, the EPA has two options. They can order them to do it or we can do the work ourselves and seek cost recovery.

So let's assume for a minute that we sign a consent decree in a hundred and -- we have sixty days for the ROD and then another 120 days for the consent degree. So we sign a consent degree. The EPA is going to ask that a pilot study be conducted concurrent with the remedial design. Remedial design will probably take a year and a half to two years. A pilot study will probably take less than a year, but we want to make sure that this interim pump and treat system will really do what the design says it's going to do. So before they commit this full twenty some million dollar remedy, we want to make sure this thing is going to work because there are some complications. This is not an easy site. It is not an easy mix of contaminants. It is not an

easy mix of media.

After the remedial design, then they'll move into remedial action. The soils and the cap, that can probably be done in a year. The interim pump and treat system, probably six to seven years. And you ask yourself, why would interim take six to seven years to pump? Do you remember I said it was at the bottom five feet of the aquifer? What we want to be able to do is pump that bottom five feet out without mixing that highly-contaminated stuff up through the entire site. So we're going to try and have those cells take water out as fast as it would be coming back into the cell, and also, some of these contaminants are what's called retarded. In other words, you can't get them out of the pores very quickly. They won't move out of the sand pores.

So it takes some time to get that stuff out and we need to do this pilot study to see how many pour volumes it takes to get that to happen.

So then after this interim pump and treat system, there's going to be a study conducted to make sure that natural attenuation, biodegradation is occurring. The actual truth of the matter is to

get to MCLs, we're actually talking about decades. This is highly-contaminated groundwater with a very complicated mix in the balance.

Who's going to pay for it? It is EPA's position that the people who caused the contamination are going to pay for it. This won't be a taxpayer subsidized or funded cleanup. EPA will ask them initially to consentually do that. If they won't do it consentually, we'll order them to do that. If we come to a problem with ordering, we'll do the work ourselves and we will seek cost recovery.

Where can I go to get more information? What I've done is I've summarized for you a ton of information. I have left out way more than I have included just because I wanted to keep it short for you. The remedial investigation upstairs, directly upstairs, is at least four feet thick of stuff. There's just a lot of stuff in it. If you go take a look at the files, if you look at the back of the fact sheet, there's a repository upstairs. There are phone numbers. My phone number is there; Jerry Willman's phone number is there; Janet Pope's phone number is there. You can call any one of us. You

can go upstairs and you can take a look at the information that's in the repository. EPA Region 5, if you want to come to the office, we've got files there. It's the same thing that you'll have upstairs. It's the information that was important to make this decision. That's where you can go to get more information.

Two things left. You can talk -- if you have any questions -- and I'm sure I have raised questions -- I'll be sure to try to clarify those as best I can. A lot of this information, it's hard to remember it all quite honestly, so I may lean on some people or promise that I'll get back to you, but almost all of the questions we can typically get back to.

We'll give you an opportunity to kind of ask questions and then kind of clarify any points in your mind before we go into the formal public comment period. The difference is if you really wanted all of your questions -- a lot of things I don't think are necessarily a formal comment, you just kind of want some clarification, and we can do that, and then once we move into the formal comment period, you can put your opinions on the record and

get a written response if you feel you would like to do that.

With that, I would like to open it up to any questions you may have.

MS. SHORTS: Peggy Shorts, County Board, representing part of Waukegan. My question is you're talking about removing some of the contaminated soil off of the site. How do you plan to do that, how is it going to be done safely, and where is it going?

MR. BELLOT: The question was I understand that you want to take some stuff off-site, some contaminated soil. How is that going to be done and how are you going to do it?

MS. SHORTS: How is it going to be done safely and where's it going?

MR. BELLOT: How is it going to be done safely and where's it going? The PAH soils, we'll talk about those things. What they're going to do is they're going to lift them up and they're going to mix them with coal. There are a lot of manufactured Coke plants across the United States and what they found is there's a particular way that they're allowing manufactured Coke plants to deal

with their particular waste. They pick it up, they mix it, and they're going to go off-site with it and have it burned at a coburning plant.

What we've done at this point is we have said your objective is to get it off-site, but we haven't told them where they have to go with it or whether they are going to use a truck, a barge, or a railroad. In the design process, that's the kind of information that we want from them in design, specifically how are you going to do this so we can make sure that we have the review and the oversight that's necessary.

It would not surprise me -- I mean there are a lot of options as you can see with the barges, the railroad, and the truck transportation. We would take a look at those.

MR. SABONJIAN: Robert Sabonjian, District 8. During the course of the time that this was going on, did I hear you correct when you said this could take decades to actually remove most of the groundwater and this material?

MR. BELLOT: The question was did I hear you right that it could take decades for the groundwater. Let's break the groundwater into two

pieces. There's the interim step to work with the highly-contaminated stuff and then there's that bottom highly-contaminated stuff. Interim steps can take six to seven years. The deeper groundwater, we really don't have excellent estimates just yet because we want them to do this interim step first and try to give us an indication of when you oxygenate this water and you add the nitrate and you put it back down and you've reduced it this one-third -- like I said, you need to do your lab studies -- what kind of breakdown are we going to get? But it is not unreasonable for this to take decades to get to MCLS.

MR. SABONJIAN: May I follow that up? During the course of this, will that area be available for some development or is it going to be totally fenced off and isolated during the life of this project?

MR. BELLOT: The question was during that time will the site be fenced off? Will it be available for development? It's important to kind of keep the groundwater and the soils kind of compartmentalized in your mind. The groundwater remedy should not be intrusive for future

development with a couple of caviats.

Caviat one is there is going to need to be a groundwater treatment facility for treatment on site. We're leaning right now that it seems to make the most sense to do that on top of the arsenic, to stabilize the arsenic and try to treat that and put the treatment system there. The only other intrusive things about the cells would probably be piping, but that can easily be adjusted around buildings, around development.

So the short answer to your question is the groundwater component should not impact the future site development in any meaningful way. Thank you for that question. Yes?

MR. GEONELLO: Cosmo Geonello (phonetically), Waukegan, Illinois. You said that the taxpayers are not going to fund this project.

MR. BELLOT: That's correct.

MR. GEONELLO: Who are the owners of this property?

MR. BELLOT: Okay. That's an excellent question too. The question is who are the owners that will be invited by the EPA to participate. There is the current owner that is Outboard Marine

Company. There is EJ&E Railroad from the wood-treating creosote. There is North Shore Gas. And also during a time General Motors operated the Waukegan Coke plant. So those are the four initially that I know will be sent invites.

Now, if there is a few other ones on the side, that could be, but between now and the time we issue special notice, I would say those four will certainly get an invitation to talk to us. Yes?

MR. HETTINGER: Lee Hettinger, Chicago. You mentioned that the ammonia exceeded a standard and then you went on to say something about it did not exceed a human health or ecological standard, but you didn't follow through. Could you tell me what you referred to --

MR. BELLOT: The question has to do --

MR. HETTINGER: -- and what standard it exceeded?

MR. BELLOT: The question has to do with the ammonia standard, and the ammonia standard is in surface water. The State of Illinois developed surface water quality standards and they developed them for both the harbor and the lake, and the harbor standards are higher. In other words, they

allow more contaminants in largely because of the human interventions that occur in a harbor.

In the lake there is an open water quality standard for ammonia of 20 parts per billion. 20 parts per billion was developed by the state in an attempt to protect the natural resource of Lake Michigan. They said -- it's my understanding; I have had this explained to me -- that they took a look at their surface water quality data and they said this is about what our ammonia is. We want to keep it there.

So it's not like health-based and it's not ecologically-based, but it's a nondegradation of the surface water standards. So it is really a standard, there's no denying that it's promulgated and it has a legal bite, but it's not a health-type standard. Does that answer your question?

MR. HETTINGER: I just didn't know whether I had heard you correctly the first time.

MR. BELLOT: Yes, that's correct.

MS. WALKER: Mary Walker. My question was you started to talk about when it would begin, but then you went into the length of six to seven years. What if everybody signed on and it went smoothly?

What would be the first date that work would begin on the site? And then assuming that there's the potential for litigation in this, how much longer is that going to go on? And then my third question is how soon will the EPA Superfund step in and start the project so we can get this done?

MR. BELLOT: Okay. There's three parts to the question. I hope I can remember them all. Refresh me if I don't. First of all, a little refresher on how quick we could actually get to work, and the second part was again how long it would take, and then third, how long before EPA would jump in.

The first question first, let me kind of redo this again. The public comment period ends on March 23rd. I would say the Record of Decision would be out in sixty days, the end of May. June -- let's say, for example, June 1 we send out special notice. They would have 120 days, June, July, August.

At the end of August we would expect to have a consent decree. If they did not do a consent decree, it would probably take us sixty days to get an order issued. So we would be looking at the

first part of November we would be looking to start the design. Still this year we'd be looking to start the design. I would say it would probably be conservatively two years to design the pilot study, so November of 2001. We could be looking at actual in-the-field in the summer, spring of 2002.

How quick before EPA stepped in? It's been my experience that there are a lot of disincentives for not signing a consent degree and there are even more disincentives for not cooperating with an order. If you don't cooperate with an order, I think it's 27-5 a day in fines that EPA can lay on a person. So it would take a pretty stern person to bluff on that. I'm not saying it won't happen, but there would probably be a time -- we're deep into litigation then. If someone walks from the UAO, I would be afraid to guess how quick that would be. It would be a very, very ugly bitter legal battle because we would probably have all kinds of access denied. It would be a very, very difficult battle. I can't even give you a very good answer, Mary. I'm sorry. It would be a nightmare at that point.

MR. FLINK: My name is John Flink. My question is the alternative that you have chosen,

how is that going to address those two plumes that are headed towards Lake Michigan?

MR. BELLOT: The question was how will the alternative that's chosen address the two plumes that are headed towards Lake Michigan.

MR. FLINK: Specifically Alternative 3.

MR. BELLOT: Specifically Alternative 3. Alternative 3, what it proposes to do is go in with the cell system and what we'll try to do is get the leading edge or the forward edge of the plume first and remove the contamination there first, bring it up, reinject this nutrient-rich stuff. So the treatment itself starts at the leading edge, pulls up the contamination, treats it, reinjects it, and then we'll move backwards toward the site away from Lake Michigan. So the idea is to actually get the leading edge first, but then move back and get the entire hot spot and actually do the same thing actually from the mirror image on the other side, start closest to the harbor and move backward toward the site.

The other thing I would -- actually you raised a point that I should mention. These drawings are kind of based on our most current

information. What we're going to ask the participants to do is go out and do a thorough groundwater sampling to make sure that we know the size of these plumes, the direction of these plumes, the magnitude of these plumes. So before they go out and just say we put in ten cells and now we're done, we found out we really didn't know where this leading edge is, we're going to have to have a pretty comprehensive groundwater study to make sure we understand where these plumes are. Does that answer your question?

MR. FLINK: Yes, it does.

MR. BELLOT: Okay. There's a question in the back.

MS. KUBILLUS: Sandy Kubillus. I was just wondering whether this study or if the remediation doesn't happen for two or three more years, what's the contamination likely to be in groundwater that reaches the shoreline area because that beach gets pretty heavily used in the summer and I just wonder if there would be any restrictions on using that beach.

MR. BELLOT: Excellent question. The question has to do with if groundwater movement

continues towards surface water and any restrictions on the beach. That's an excellent question.

The thing that I would stress here is the groundwater is discharging down beneath the surface water. There will be ongoing discharges to Lake Michigan. The important thing that we're trying to do is get that big thumbprint and that slug. Right now the discharges to surface water are not causing exceedances other than ammonia and it's not a health-based standard. There should not be, unless the situation changes -- and we're going to continue to monitor surface water -- unless the situation changes, there should not be any restrictions to surface water use in that area, but we will continue to sample routinely to make sure that that is indeed the scenario.

MR. PFISTER: Mark Pfister, Lake County Health Department. Just to follow up on those last two questions, is the plume based on actual measurements to date or is that computer modeling?

MR. BELLOT: It's actually both. The question is is this real data or is this a model and the answer is both because we used real data and put it in a model, so the data that has been put into

this model is factual, but there is a lot of interpretation in a model and that's why it's so important for us to go out and do that next ground sampling to make sure that we understand entirely where this plume is.

MR. PFISTER: A second part of that question is what is the estimated time of movement, time for that plume to reach Lake Michigan at this point?

MR. BELLOT: That's an excellent question. The question is what is an estimate of the time for that plume to get to Lake Michigan? Can you help me? I would like to introduce Phil Smith. He is my technical right-hand man for EPA and I think he is doing a calculation. Can you give me a ballpark?

MR. SMITH: Well, I would have to almost defer to Jim, but correct me if I'm wrong, are the groundwater level velocities roughly a foot per day on retarded?

A VOICE: A third of that.

MR. SMITH: We're talking years for the main force of the plume to move out on the lake and discharge. We have ten years at least. That's the kind of time frame we're talking about.

MR. BELLOT: We're talking more than ten years. And that's consistent with -- if you think about how long ago it's been since the discharge has stopped and how much it's moved, to me that's intuitively -- that seems to match, that it hasn't moved rapidly to Lake Michigan.

MR. SABONJIAN: Yes, Robert Sabonjian, District 8 County Board. Two questions. One, have we seen any of this material, any hint of this showing up in the drinking water supply? And number two is will it require reengineering of the intake for our drinking water supply if you begin to do this work? Just for safety sake will they have to run that out further into the lake?

MR. BELLOT: The question is two-fold. First of all, have we seen any change in the drinking water qualities, because as you may or may not know, the drinking water intake is in Lake Michigan, and would it require any reengineering to move that drinking water intake further out?

The first question is -- let me back up just for a second and say kind of a good thing/bad thing is Lake Michigan is very big and it has a huge dilution effect, so on one side that's kind of a

good thing, on the other side it's kind of a bad thing because it's Lake Michigan. At this point the long shore current and the near shore current mix so rapidly it moves so quickly in there that it's not very likely that we would ever see a problem. In fact, we have to look really pretty hard and really bias our sampling to find the ammonia exceeds and we just haven't seen the other ones.

So the second part to your question is it's highly unlikely. But let me caviat that by saying we're going to continue to sample surface water routinely and if at any time that looks like that needs to be done, we would do that because that would be a collosal concern to us.

MR. LARSEN: Jerry Larsen. You have referred to quite a bit of that property or how much property I don't know being covered with an asphalt cap, what you referred to as I believe a flexible cap. My question is what's a flexible cap, how much property will be covered by that cap, and would the property under that cap be usable?

MR. BELLOT: The question has to do with the flexible versus the asphalt cap and how big this cap would be and what it would do to perhaps limit

use. What I was trying to do actually and probably didn't do as good a job as I would like to is distinguish Alternative 2 from Alternative 3. Alternative 2 included a very large asphalt cap and

Alternative 3 is the one we're leaning towards because it was the flexible cover, and what I mean by -- what I was trying to get by flexible cover is it starts vegetative and then if future development would want buildings, depending on the kind of building or asphalt, they could do that. The exact size of the cap -- do we have an estimate of that? I'm sorry. I'm kind of looking around here.

A VOICE: 20.

MR. BELLOT: 20 acre cap, in that neighborhood, and it should not -- the idea of this particular cap was to be as flexible as possible for future development. So it's our intent that it does not stand in the way of future development with some caviats on it. Certainly things that don't need to go deep and buildings that are asphalt or concrete, those are all viable options. Boat storage, that kind of thing, absolutely.

MR. CRAWFORD: Roger Crawford. I have two

questions. The first one has to do with the groundwater and the effect on construction. Would it affect in any way the maintenance or construction of utilities to support either building development on that site or nearby buildings and maintenance?

MR. BELLOT: The question has to do with if you put this system in, is it going to interfere -- is the maintenance going to interfere with construction? Is that kind of the --

MR. CRAWFORD: No. The code requires that sewers be constructed at a certain depth and utilities placed at a certain depth and these are below ground level, and so any construction in this area that has services has some --

MR. BELLOT: I understand what you're saying. The significance of what he is saying is what if you have to go down into groundwater. Yes, the restrictions on this site in some ways may impede those type of things. I don't think they'll stop them, but there may have to be some specific actions taken, and that's where the soils management plan would be so important so people know what's expected and required, because if you have to go out there and start dewatering contaminated water,

someone is going to have to deal with that water and it's going to have to be done appropriately. So my short answer to you is yes, that would impact that sort of thing.

MR. COAN: Michael Coan. I'm an architect, and I'm just following up his question. Have you monitored the groundwater levels on the site?

MR. BELLOT: The question is have we monitored the groundwater levels as in height. Is that what you're talking about?

MR. COAN: That's correct.

MR. BELLOT: Excellent question. Phil, can you help me here? Do you know?

MR. SMITH: Sure. It's about four foot down to groundwater. Is that what you're asking?

MR. BELLOT: I'm sorry. I thought -- did we monitor fluctuation -- my mistake. The question was do we know how deep it is to groundwater. It's about four feet, between three and four feet.

MR. COAN: Second question. The record that was purported to be the administrative record, have any documents been submitted that are not contained in the record?

MR. BELLOT: The question is what if -- it

has to do with the admnistrative record. The administrative record, let me give you a little background first and then I'll repeat the question. It has to do with what if you want documents entered into the administrative record. If someone has a document that they would like entered into the administrative record, please forward it to my attention. What we did is we tried to rely on the documents. We put the documents in the administrative record that we relied on for the decision. Often people ask me if I would add things to the administrative record. Send them to me directly and I will absolutely consider whether they should be added.

MR. COAN: My comment today is there are other records that were not included and I wondered if that was --

MR. BELLOT: Whether it was intentionally?

MR. COAN: Yes.

MR. BELLOT: The question was whether there were specifically documents intentially kept out. No. If you have something you would like added to it, I would certainly be willing to consider that.

If we don't have any more questions --

Janet, how do you propose that this is done? Do they speak to you or how would you --

MS. POPE: They would get up and speak -- well, this is the time for the public comment period, and in the public comment period you can ask questions, you can make statements, opinions, whatever you want to say, but we will not respond to those questions or anything. They will be responded to in our responsiveness summary.

So if anybody wants to get up and say anything, at this point you can get up and say it, whatever, but Mike will not be responding to it at this time.

Now, if anybody doesn't have anything to say and maybe has extra questions or whatever at this point, either Mike and I could keep moving in that direction or we could start the public comment period now.

MR. BELLOT: And the other thing that I would stress is this isn't your only opportunity. I'm not very good -- I don't know how you are with just standing up asking a question. If you would prefer to, on the back of a fact sheet you can write your question and you can mail it to us. You can

mail it to me. You can -- whatever works best for you. Some people like to think about it a little bit, think about the information. They like to go look at the repository. So please don't think that this is your only opportunity to talk about this. You have got until March 23rd.

A VOICE: I wondered if you could show those slides with the three plumes again, the arsenic, and perhaps indicate the direction that it's moving. Would that be possible?

MR. BELLOT: This is the arsenic plume.

A VOICE: And Lake Michigan is to the right?

MR. BELLOT: Lake Michigan would be over here and over here is the harbor. I can hardly make out that scale.

A VOICE: The plume is moving which way?

MR. BELLOT: There's a divide about here. The plume is moving this way towards Lake Michigan and then over here it's moving this way towards the harbor. And the next one is the phenol.

A VOICE: Where is that in reference to the Coke?

MR. BELLOT: I think the Coke plant would

have been right in here. That's the phenol. And that's the ammonia. The significant portions are right here and right here.

A VOICE: Thanks a lot.

MR. BELLOT: You bet.

MS. POPE: Are there any more questions at this time?

MR. REHOR: Mike Rehor. Can you talk a little bit about Alternative 3B?

MR. BELLOT: Within each of the alternatives there were subalternatives and a lot of them have to do with what happens once it goes off-site. If I remember correctly, 3B went off-site to a disposal facility. The EPA has a preference for treatment of what we call principal contaminants and we identified the PAHs and the arsenic as principal threats. Principal threats, EPA has a bias for treatment. So that's why EPA was leaning towards the treatment alternative rather than your traditional landfilling of the waste. The difference is what happens to the waste. Do you bring them up and treat them or do you take them off-site and bury them someplace else? Does that get to your question?

MR. REHOR: Yes.

MS. POPE: Are there any more questions? At this time we can move into the public comment period. At this time you can stand up and say whatever you want to say at this time, but we will not be responding. We will be responding in a responsiveness summary. So anybody can stand who would like to get up. Does anybody want to start the public comment period? Well, do we have any more questions you want answers to? No questions?

MS. WALKER: Mary Walker. Some of the documents are down in the Port District Office too. They were sent to us originally.

MR. BELLOT: I'm also available for other speaking engagements if someone would like for --

MR. SABONJIAN: I would like to extend the invitation that you come to the Lake County Board to make an informative presentation as done here so that the county board and the members can see what we're up against in this area.

MS. POPE: Any other questions? If not, thank you all very much.

MS. WALKER: Mary Walker again. I would like to go on record as recommending Alternative 3

because of its flexibility. Every one of us has been looking at future expansion in the Waukegan area and especially in our industrial area. We may not all agree on what means or which method, but we would like to see and I would like to see the most expedient alternative to a future use of that site.

MS. POPE: Any other comments? Jerry, do you have anything you want to say?

MR. WILLMAN: No.

MS. POPE: Well, we would like to thank you for coming out. Do you have anything else to say, Mike?

MR. BELLOT: No. I am available. My number is on the back. I left cards at the table. My number is on the back of the fact sheet. Please feel free to contact me and I promise you I'll get back to you.

MS. POPE: And remember the public comment period, March 23rd. Send in your comments. Thank you all for coming.

STATE OF ILLINOIS )
) SS:
COUNTY OF LAKE )

I, CINDY BENNER, do hereby certify that I am a certified shorthand reporter doing business in the County of Lake and State of Illinois, that I reported in shorthand the foregoing proceedings taken on Wednesday, March 3, 1999 and that the foregoing is a true and accurate transcript of my shorthand notes so taken as aforesaid.

Cindy Benner

Cindy Benner
Certified Shorthand Reporter
License No. 084-002426

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CINDY BENNER
NOTARY PUBLIC, STATE OF ILLINOIS
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